

REMARKS

The Office Action dated January 29, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 22 and 33 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-34 are submitted for consideration

Claims 1-5, 12, 14, 16-21, 28, 30, and 32-34 were rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,434,389 to Meskanen (hereinafter Meskanen). The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in claims 1-5, 12, 14, 16-21, 28, 30, and 32-34.

Claim 1, upon which claims 2-16 depend, recites a radio resource control method in a mobile communication system including camping, in an idle state, on a serving cell formed by a base station and receiving, in the user equipment, control information for controlling cell change procedures of the user equipment, the cell change being conducted from the serving cell to a target cell. The method also includes performing, in the user equipment, the cell change procedures based on the received control information and adjusting, before the control information is received, at least one element of the control information according to a predetermined time pattern, thus forming adjusted

control information. The method further includes controlling the cell change procedures based on the adjusted control information, wherein at least one neighbor cell is formed by a neighbor base station and the user equipment capable of receiving signals from the base stations.

Claim 17, upon which claims 18-32 depend, recites a mobile communication system including a network part for providing the fixed infrastructure of the mobile communication system, the network part including a serving base station for forming a serving cell and a neighbor base station for forming a neighbor cell. The system includes a user equipment including a receiving device configured to receive signals from the serving base station and from the neighbour base station. The network part further includes a control device configured to control cell change procedures with control information, the cell change being conducted from the serving cell to a target cell. The user equipment further includes a cell change procedure device configured to perform cell change procedures based on control information received from the network part. The receiving device and the cell change procedure device are configured to camp on the serving cell in an idle state. The network part further includes an adjusting device configured to adjust at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information.

Claim 33 recites a network element of a mobile communication system, which includes a serving base station configured to form a serving cell and a neighbor base station configured to form a neighbour cell. The system also includes a user equipment

camped on the serving cell in an idle state and including a receiving device configured to receive signals from the serving base station and from the neighbour base station. The user equipment further includes a cell change procedure device configured to perform cell change procedures based on control information and a control means device configured to control cell change procedures with control information. The cell change is conducted from the serving cell to a target cell. The network element further includes an adjusting device configured to adjust at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information.

Claim 34 recites a mobile communication system including a network part for providing the fixed infrastructure of the mobile communication system. The network part includes a serving base station for forming a serving cell and a neighbour base station for forming a neighbour cell. The network part includes a user equipment including receiving means for receiving signals from the serving base station and from the neighbour base station. The network part further includes control means for controlling cell change procedures with control information, the cell change being conducted from the serving cell to a target cell. The user equipment further including cell change procedure means for performing cell change procedures based on control information received from the network part. The receiving means and cell change procedure means are configured to camp on the serving cell in an idle state. The network part further includes adjusting means for adjusting at least one element of the control

information according to a predetermined time pattern, thus forming adjusted control information.

As outlined below, Applicants submit that the cited reference of Meskanen does not teach or suggest the all of the elements of the pending claims.

Meskanen relates to prioritizing special cells in cell selection in a cellular radio network. The mobile station measures an average reception level and calculates them by means of the cell selection parameters, on the basis of which the best cell is selected. When the mobile station detects that a cell is one of cells of a special cell list stored in a memory, it checks first if the cell fulfils a minimum requirement of cell selection on the basis of the measured signal level. If the minimum requirement is fulfilled, the mobile station manipulates the calculation of the cell selection parameter of the special cell to the effect that the selection probability of the special cell is improved with respect to a normal cell. See at least the Abstract of Meskanen.

Applicants submit that Meskanen does not teach or suggest each of the elements recited in claims 1-5, 12, 14, 16-21, 28, 30, and 32-34. Each of the independent claims, in part, recites adjusting, before the control information is received, at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information. Meskanen does not teach these features. The Office Action alleged that the “manipulation” disclosed in Meskanen anticipates that adjusting feature recited in the present invention.

The manipulation described in Meskanen takes place in the mobile station, not in the network. Furthermore, in Meskanen the manipulation is directed at the calculation of the cell selection parameters of a special cell to the effect that the selection probability of a special cell is improved with respect to a normal cell. In claim 1, the at least one element of the control information is adjusted before the control information is received, thus, inevitably leading to the fact that the adjusting is performed outside the user equipment. Claims 17, 33 and 34, clearly recites that the adjusting is carried out in the network, not in the user equipment. The technical effect is that the user equipment does not need to be modified in order to implement the invention.

Furthermore, Meskanen fails to teach or suggest that there is adjustment of control information according to a predetermined time pattern. The term “manipulation” as disclosed in Meskanen does not indicate the use of predetermined time pattern. In the present invention, the predetermined time pattern, for instance, a time element of the predetermined time pattern may be a certain time of day, such as day, night, rush hour or a time of a mass event, when the profile of the mobile communication system is known a priori at sufficient accuracy. The duration of a time element may vary from minutes to several days or weeks. A long-term time element may be for instance a holiday season during which the load in urban areas is usually lowered. The profile includes variables, such as an assumed capacity requirement and an assumed cell load, which can be predetermined at a sufficient accuracy for each time element, and according to which the

performance of the mobile communication system can be optimized. See at least page 12 of the corresponding PCT publication.

In addition, Meskanen is directed to solving a different problem than that solved by the present invention. Meskanen refers to subscriber-specific location areas and selecting a serving cell such that the user is able to use the special cells and the special tariffs and services provided by them as much as possible. See column 2 of Meskanen. The present invention, on the other hand, deals with excess handovers during dedicated connection and data transfer, thus, resulting in simultaneous signaling and data transfer. The present invention therefore adjusts control information according to a predetermined time pattern while the user equipment is in an idle mode. Based on the arguments noted above, Applicant respectfully asserts that the rejection under 35 U.S.C. §102(e) should be withdrawn because Meskanen does not teach or suggest each feature of claims 1, 17, 33 and 34 and hence, dependent claims 2-5, 12, 14, 16, 18-21, 28, 30 and 32 thereon.

Claims 7-11 and 23-27 were rejected under 35 USC §103(a) as being unpatentable over Meskanen as applied to claim 1 in view of U.S. Patent No. 6,181,943 to Kuo (hereinafter Kuo). According to the Office Action, Meskanen teaches all of the elements of claims 7-11 and 23-27 except for teaching inter-frequency. Therefore, the Office Action combined the teachings of Meskanen and Kuo to yield all of the elements of claims 7-11 and 23-27. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 1 and 17, upon which claims 7-11 and 23-27 depend.

Kuo discloses an apparatus and method which, in a wireless communication system, improve the quality of inter-frequency hand-offs from an existing call connection frequency to a new frequency by minimizing oscillating inter-frequency hand-offs between the existing call connection frequency and the new frequency, and by minimizing redundant and unnecessary tuning and searching at the new frequency.

Kuo does not cure any of the deficiencies of Meskanen, as outlined above. Specifically, Kuo does not teach or suggest adjusting, before the control information is received, at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information, as recited in claims 1 and 17 upon which claim 7-11 and 23-27 depend. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Meskanen nor Kuo, whether taken singly or combined, teaches or suggests each feature of claims 1 and 17 and hence, dependent claims 7-11 and 23-27 thereon.

Claims 6 and 22 were rejected under 35 USC §103(a) as being unpatentable over Meskanen in view of U.S. Patent Publication No. 2002/0173275 to Coutant (hereinafter Coutant). According to the Office Action, Meskanen teaches all of the elements of claims 6 and 22 except for teaching the use of different carrier frequency for planning a radio resource control method in a mobile communication system. Therefore, the Office Action combined the teachings of Meskanen and Coutant to yield all of the elements of claims 6 and 22. The rejection is traversed as being based on references that neither

teach nor suggest the novel combination of features clearly recited in claims 1 and 17, upon which claims 6 and 22 depend.

Coutant disclose a telecommunication network that includes at least one terminal able to switch from idle mode to dedicated mode when a communication is established. The network also includes a plurality of cells on which the terminal can camp in idle mode or dedicated mode and controlled by base stations intended to manage such a switching when a communication is established.

Coutant does not cure any of the deficiencies of Meskanen, as outlined above. Specifically, Coutant does not teach or suggest adjusting, before the control information is received, at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information, as recited in claims 1 and 17 upon which claim 6 and 22 depend. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Meskanen nor Coutant, whether taken singly or combined, teaches or suggests each feature of claims 1 and 17 and hence, dependent claims 6 and 22 thereon.

Claims 13, 15, 29, and 31 were rejected under 35 USC §103(a) as being unpatentable over Meskanen in view of U.S. Patent Publication No. 2002/0147262 to Lescuyer. According to the Office Action, Meskanen teaches all of the elements of claims 13, 15, 29, and 31 except for teaching idle states for planning a radio resource control method in a mobile communication system. Therefore, the Office Action combined the teachings of Meskanen and Lescuyer to yield all of the elements of claims

6 and 22. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 1 and 17, upon which claims 13, 15, 29, and 31 depend.

Lescuyer discloses communication systems and methods for allowing a single mode mobile terminal to support mobile assisted signal strength measurement operations in both a fixed frequency reuse based communication network and an adaptive channel allocation based communication network. Lescuyer does not cure any of the deficiencies of Meskanen, as outlined above. Specifically, Lescuyer does not teach or suggest adjusting, before the control information is received, at least one element of the control information according to a predetermined time pattern, thus forming adjusted control information, as recited in claims 1 and 17 upon which claim 13, 15, 29, and 31 depend. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Meskanen nor Lescuyer, whether taken singly or combined, teaches or suggests each feature of claims 1 and 17 and hence, dependent claims 13, 15, 29, and 31 thereon.


As noted previously, claims 1-34 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-34 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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